

Construction Begins on Snezhinsk Pipe Coating Facility

The formal groundbreaking ceremony for the Snezhinsk Pipe Coating Facility (SPCF) took place on November 18, 2002 in Snezhinsk. The ceremony was an important milestone in construction of the SPCF, a project coordinated by Brookhaven National Laboratory (BNL). The city administration deforested and leveled the land before donating it to the Snezhinsk Energy Saving Technologies (SEST) Company, the future owner and operator of the facility, which will employ 200. NCI representatives, several city and regional officials and SEST staff attended the ceremony, which received coverage on the Snezhinsk television and radio.

SEST has also proposed establishing a charitable fund setting aside 1%-2% of SPCF profits to provide college scholarships for Snezhinsk students.

Following the ceremony, Anatoly Oplanchuk, the mayor of Snezhinsk committed city funds for the construction of the plant, matching the U.S. funding for the purchase and installation of technological equipment and plant infrastructure. The SPCF will coat and produce insulated pipes for home heating



Attending the Snezhinsk Pipe Coating Facility Ground-Breaking: L-R, Vladimir Klimenko, Vice Mayor of Snezhinsk; Lev Neymotin, BNL; Alexander Meinikov, SPCF; Margot Mininni, RTI HQ; and Anatoly Oplanchuk, Mayor of Snezhinsk.

use, providing more reliable and energy efficient heat to residents throughout the region. The facility is expected to open and begin production by 2004.

NCI Joint Working Group Meets in Moscow

An NCI Joint Steering Committee working group meeting took place in Moscow on November 20-21.



Russian and U.S. representatives meet for an NCI Joint Working Group in November.

Representatives from NCI, MinAtom, Sarov, Snezhinsk and Zheleznogorsk attended. The group came to agreement on the list of projects for fiscal year 2003. NCI's new requirements for project implementation were also discussed.

Acting NCI Director Elly Melamed briefed participants on recent changes to NCI project review and approval processes, and raised the need to improve accountability and transparency in project implementation. Melamed suggested that NCI work more closely with the MinAtom Conversion Department to better leverage U.S. and Russian resources.

In a separate meeting, Vladimir Kuchinov, Acting Director of MinAtom's International Department, stressed that NCI is a viable program, and a top priority for MinAtom.

Zheleznogorsk Delegation Tours U.S. Businesses

Andre Katargin, Mayor of Zheleznogorsk, visited the U.S. with a delegation of business and city development specialists in October 2002. The NCI-supported visit exposed the group to U.S. business development practices.

The visit began in Tennessee, focusing on the business incubator and technology commercialization efforts of Oak Ridge National Laboratory and Y-12. Having long worked in a sister-city arrangement with Alcoa, Maryville and Blount County at a distance, the delegation traveled there to observe successful business development efforts and explore possible commercial partnerships between the U.S. and Russian cities. Discussions on reindustrialization of DOE facilities were of special interest.

The group then traveled to the Pacific Northwest, where the Foundation for Russian American Economic Cooperation (FRAEC) hosted the delegation in Seattle, and scheduled meetings and visits with business support firms, financial institutions, municipally sponsored technology transfer organizations, and private businesses.

Later, Pacific Northwest National Laboratory (PNNL) hosted the group in Richland, where the focus was on small and medium enterprise development and growth, highlighting the strategic planning experience of the Tri-Cities (Richland, Kennewick and Pasco). The delegation saw models using public and private support of business incubation and technology transfer.

The Tri-Cities strategic plans to move Hanford's



Andrei Katargin, Mayor of Zheleznogorsk and Mike Walker, President of Dienamic Tooling Systems, Inc. discuss the success of his small business in the East Tennessee Technology Park.

former defense resources to commercial applications especially impressed Mayor Katargin

Zheleznogorsk is now working with RTI, PNNL and FRAEC to develop a strategic plan to prepare the city for closure of its one remaining plutonium reactor. Once a new power and steam plant is built to replace the reactor, as many as 6,000 former defense workers will need to find civilian employment. Development of an effective strategic plan is the City Administration's highest priority. In developing the new plan, Zheleznogorsk is relying heavily on the Tri-Cities model.

NCI Access Issue Resolved

Soon after Ambassador Brooks met with First Deputy Minister Lev Ryabev in Moscow on September 4 to urge acceptance of the 30 day accelerated access called for in the Arrangement on Access, NCI project managers began to receive timely access to the closed cities.

The first delegation to a nuclear city after the resolution of the NCI access impasse took place the week of October 28, 2002. A delegation that included representatives from NCI, Los Alamos and the Department of Commerce visited Sarov under access procedures developed in February 2002 but only recently implemented. The team agenda included reviewing projects in the Avangard TechnoPark, Sarov Labs, and VNIIEF Conversia. The Department of Commerce representative visited the TechnoPark to support an advisory opinion that the TechnoPark is a civilian end use facility. A Pacific Northwest National Laboratory (PNNL) delegation to Zheleznogorsk also gained access in October. Two delegations to Snezhinsk followed in November - one from Brookhaven National Laboratory (BNL) and one from Lawrence Livermore National Laboratory (LLNL).

Focus On SPEKTR-Conversion

The Snezhinsk-based company SPEKTR-Conversion (Spektr) is an industrial design and engineering firm providing technical expertise and services for application in the oil, automotive and medical technology sectors. Spektr was salvaged from its predecessor, the failed State Unitary Enterprise (S.U.E.) SPEKTR, an offshoot of the All Russian Research Institute of Technical Physics (VNIITF), a 386-person enterprise created in the economically desperate climate of 1999 to give excess nuclear engineers and technicians a year to develop their skills for the private sector, before being released by the Institute. NCI worked with S.U.E. SPEKTR to retool technical expertise to the civilian market, and the Initiatives for Proliferation Prevention (IPP) helped commercialize technologies, including oil well perforators and prosthetic devices.

One year proved too short a time to establish and sustain the firm. VNIITF disbanded the organization and invited several of the weapons workers back to defense work. But one year was enough for a small and determined group of key weapons workers who declined to return to VNIITF. With RTI and city administration support, a smaller team formed Spektr as a limited liability company in August 2000.

Spektr struggled to build its business from the ground up. After severing ties with VNIITF, it resurrected and developed prosthesis, oil well perforators and automotive engineering work through RTI. In the Russian market, Spektr secured

small contracts for high temperature ovens, LED stoplights, gemstone polishing and oil well perforators.

RTI provided infrastructure support through the supply of machine tools and workshop renovation, as well as access to Western capital markets. Spektr continued to develop work in robotics with Sandia laboratory, and began negotiations with a U.S. industry partner to create a medical device manufacturing joint venture. RTI strengthened Spektr's core business management through intensive consultation on business development and quality control.

This effort illustrates how RTI has changed under the Bush Administration to enable weapons workers to find private sector alternatives to defense work through technology commercialization and business infrastructure support. After the first joint venture with a U.S. firm goes through, Spektr expects other industry partners to step forward. This success has permitted Spektr to hire away additional former weapons experts from VNIITF and to double in size. With planned additions in the coming year Spektr's staff could grow to three times its original size. But these opportunities present many challenges to the company and it needs the support of RTI over the next two years to help assist with the growth that can overwhelm a young company moving toward self-sustainability.

This year Spektr has 17 domestic and foreign contracts for work totaling \$2.7M. This fledgling firm has grown from 43 to 85 full-time workers, with many others waiting for their chance to apply.

IPP and SPEKTR-Conversion

Under IPP, Spektr has established cooperative partnerships with several U.S. firms for the development of cutting edge technologies in a variety of markets. Cooperative projects include design and engineering of medical technology devices, specialty automotive, and robotic systems.

IPP projects are designed to foster sustainable, commercial partnerships independent of other U.S. Government support once a project is completed. U.S. industry partners have expressed a high degree of satisfaction with Spektr's performance, and are planning to source parts and components production from the Spektr facility in Snezhinsk.

Spektr and the California-based firm Numotech are working on the development and manufacture of a mechanical wheel chair cushion that will prevent

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Bill Komashko (front left), Senior Project Manager SNL, reviews Spektr's design modifications to a prosthetic limb as Vladimir Pervushin (rear left), Business Director Spektr-conversion and Spektr Director Anatoly Ivanov (rear right) look on.

IPP and SPEKTR

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painful pressure sores. Spektr also works with two U.S. medical firms to develop “smart” (computerized) artificial limbs as well as low-cost prostheses for markets in developing countries. In cooperation with Stolar Horizons, Inc. of New Mexico, Spektr has started work on remote control robotic equipment to remove the millions of landmines that persist in many war-torn corners of the globe. Demonstrating the breadth of its engineering expertise, Spektr has partnered with Kirkham Motorsports in Utah to design and produce titanium engine parts for high-value sports cars.

IPP has committed more than \$9 million over several years to Spektr projects. In addition to supporting the work of scientists and engineers, IPP support has made it possible for Spektr to achieve ISO9001 and ISO13485 quality certification.

The favorable experience of the U.S. industry partners with Spektr and the infrastructure upgrades to the workshops and equipment of the firm made by NCI, have led to discussions of joint ventures with the Snezhinsk firm. These joint ventures would go a long way toward stabilizing the young company, draw off more skilled engineers from weapons work at VNIITF, and attract more civilian investment to Snezhinsk.

RTI Funds Development of New Counter-Terrorism Technology in Sarov

The Russian Transition Initiatives (RTI) and the Warhead Safety and Security Exchange (WSSX), are currently developing a project with the Russian Federal Nuclear Center Institute of Experimental Physics (VNIIEF) in Sarov, Russia to create a new, portable highly enriched uranium (HEU) detection device. This counter terrorism technology would detect shielded HEU, one of the most challenging problems to those working in the area of threat mitigation. Los Alamos National Laboratory (LANL) would provide the detection and data analysis system used in the device under the WSSX program. Combining the US and Russian efforts is expected to result in the near term production of a portable system that can be used to detect HEU in containers located at seaports and other points of entry.

Outsourcing Summit Generates Leads for Sarov Labs

As a result of contacts made at the June Software Outsourcing Summit in St. Petersburg, managers of SarovLabs (formerly Sarov Open Computing Center) were invited to participate in a Russian-German Information Technology Symposium on October 22-23, 2002. This allowed SarovLabs to expand its marketing reach into Europe and to generate commercial contacts in new areas. SarovLabs also received an invitation to present a report at the International Forum “New Technologies to New Russia” held in Ekaterinburg on October 29-November 2, 2002. In addition to Russian industrial companies, participants included several American and Western European firms such as Delcam plc (UK), Mechanical Dynamics Inc., ANSYS Inc., Solid Works (USA), Romer (France) and RWP (Germany).

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